Army Soldier GD Bihar Regt Centre (Danapur Cantt) 28 March 2021 Official Paper. (Previous Year Paper)

Army GD Agniveer • 2021 • 50 questions • 60 minutes • Answer key and solutions

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GENERAL KNOWLEDGE

Q1. 'Kambala race' a traditional buffalo race is held in which of the following states?

(a) Telangana
(b) Kerala
(c) Tamil Nadu
(d) Karnataka

Q2. Prime meridian is located at _____degree meridian.

(a) 90
(b) 180
(c) 60
(d) 0

Q3. The most important uranium mine in India is ____.

(a) Manavalakurichi
(b) Gauribidanur
(c) Vashi
(d) Jaduguda

Q4. Khasi and Garo Tribes mainly live in _____.

(a) Manipur
(b) Nagaland
(c) Mizoram
(d) Meghalaya

Q5. The first session of the congress was held in:

(a) Delhi
(b) Surat
(c) Calcutta
(d) Bombay

Q6. Where is Lal Bahadur Shastri National Academy of Administration located ____.

(a) Mussoorie
(b) Delhi
(c) Ooty
(d) Shimla

Q7. Term of Rajya Sabha members is

(a) None of these
(b) 2 Years
(c) 5 Years

(d) 6 Years

Q8. The largest irrigation canal in India is called the _____

(a) Sirhand canal
(b) Yamuna canal
(c) Indira Gandhi canal
(d) Upper Bari Doab canal

Q9. Who was the first muslim woman ruler of delhi ?

(a) Chand Bibi
(b) Razia Sultan
(c) Noorjahan
(d) Begam Hazarat Mahal

Q10. Meenabakkam International Airport is in ?

(a) Hyderabad
(b) Chennai
(c) Coimbatore
(d) Bangluru

Q11. Which of the among following is an important tribe of the Dhauladhar Range ?

(a) Lepcha
(b) Gaddi
(c) Tharu
(d) Abor

Q12. Which of the following kingdoms was NOT associated with the life of the Buddha?

(a) Avanti
(b) Gandhara
(c) Kosala
(d) Magadha

Q13. The air that contains moisture to its full capacity:

(a) Relative humidity
(b) Specific humidity
(c) Absolute humidity
(d) Saturated air

Q14. Headquarters of which bank are located in Manipal, Karnataka ?

(a) Canara Bank
(b) Syndicate Bank
(c) Corporation Bank
(d) Vijaya Bank

Q15. Who was admired as tempestuous Hindu in 1893 in the world parliament of Religions in Chicago ?

(a) Rabindra Nath Tagore
(b) Swami Dayanand Saraswati
(c) Gautam Buddha
(d) Swami Vivekananda

GENERAL SCIENCE

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Q16. The melting point of copper is _____.

(a) 1085°C
(b) 100°C
(c) 1036°C
(d) None of these

Q17. Tooth decay starts when pH of mouth is lower than _____

(a) 7
(b) 5.5
(c) 8
(d) 10

Q18. The molecular formula of cane sugar is _____.

(a) H_2CO_3
(b) $C_{12}H_{22}O_{11}$
(c) $C_6H_{12}O_6$
(d) $H_2C_2O_4$

Q19. At high altitude nose bleeding occurs due to:

(a) Low atmospheric pressure
(b) Severe cold
(c) High atmospheric pressure
(d) None of these

Q20. Which of the following is a primary fuel ?

(a) Charcoal
(b) Coal
(c) None of these
(d) Petroleum

Q21. Which among the following helps in circulation of blood ?

(a) None of these
(b) Lymphocytes
(c) Monocytes
(d) Blood platelets

Q22. Photosynthesis occurs maximum in _____

(a) Blue light
(b) White light
(c) Red light
(d) Green light

Q23. Which is the correct unit for measuring terrestrial distances ?

(a) Meter
(b) Centimeter
(c) Kilometer
(d) Light year

Q24. Botany is the study of _____

(a) Plants life
(b) Human life
(c) Birds life
(d) Animals life

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Q25. Which of the following is the first calculating device ?

(a) Calculator
(b) Turing machine
(c) Pascaline
(d) Abacus

Q26. The revolver was invented by _____.

(a) John Browning
(b) Henry Deringer
(c) Theodor Bergmann
(d) Samuel Colt

Q27. Hertz (Hz) is the unit of _____.

(a) Pressure
(b) Frequency
(c) Number of cycles
(d) None of these

Q28. What do you understand by Aerodynamics ?

(a) It is a science that deals with the study of body pain
(b) None of these
(c) It is a science of movement in a flow of air or gas
(d) It is a science of generative organs

Q29. Who among the following is considered as the 'father of artificial intelligence' ?

(a) Charles Babbage
(b) Lee De Forest
(c) JP Eckert
(d) John McCarthy

Q30. Coronagraph is used for _____?

(a) Study the veins
(b) Study Blood pressure
(c) Observing and photographing the sun's corona
(d) Studying the arteries

MATHEMATICS

Q31. A person sells 320 mangoes at the cost price of 400 mangoes, What is his profit percentage ?

(a) 15%
(b) 20%
(c) 25%
(d) 10%

Q32. Find 30% of (1500 + 600) = ?

(a) 630
(b) 650
(c) 610
(d) 600

Q33. The perimeter of a triangle is 600 m. If the ratio of sides is 12 : 13 : 15 find the longest side

(a) 180
(b) 225
(c) 195
(d) 220

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Q34. A motor boat takes 2h to travel a distance of 9 km down the current and it takes 6h to travel against the current. The speed of the boat in still water and that of the current (in km/h) respectively are

(a) 3 km/h and 1.5 km/h
(b) 3 km/h and 1 km/h
(c) 3 km/h and 2.5 km/h
(d) 3 km/h and 2 km/h

Q35. In how many different ways can the letters of the word ARISE be arranged ?

(a) 90
(b) 60
(c) 120
(d) 180

Q36. The product of a rational and an irrational number is _____.

(a) Always an integer
(b) Always a rational number
(c) sometimes rational and sometimes irrational number
(d) Always an irrational number

Q37. Find which is the next number in series ?

31, 7, 25, 13, 19, 19, 13, ____

(a) 7
(b) 31
(c) 25
(d) 14

Q38. A polygon has 44 diagonals, Find the number of its sides ?

(a) 10
(b) 12
(c) 11
(d) 13

Q39. if an event cannot occur, then the probability is ____

(a) 1
(b) 3/4
(c) 0
(d) 1/2

Q40. The difference of two number is 2 and difference of their squares is 28. The sum of the number will be:

(a) 19
(b) 21
(c) 15
(d) 14

Q41. Convert 1589 miligram into grams.

(a) 158.9 grams
(b) 15.89 grams
(c) 0.1589 grams
(d) 1.589 grams

Q42. A batsman in his 12^(th) inning makes a score of 63 runs and there by increase his average score by 2, what is his average after the 12^(th) innings ?

(a) 13
(b) 39
(c) 87

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(d) 41

Q43. The average age of 7 boys is 20 years. If average age of the first six boys is 19 1/2 years then the 7^(th) boy will be how many years old ?

(a) 20 years
(b) 23 years
(c) 21 years
(d) 18 years

Q44. Which is the next number in the series 5, 25, 125, _____?

(a) 375
(b) 650
(c) 600
(d) 625

Q45. A and B can do a work in 10 days and 15 days respectively. If A starts on the work and both work alternate day. In how many days will the work be completed ?

(a) 12
(b) 10
(c) 9
(d) 8

LOGICAL REASONING

Q46. Suresh, the son of Mahesh is married to Sia, whose sister Jia is married to Amar, the brother of Suresh, How is Jia related to Mahesh?

(a) Daughter-in-law
(b) Cousin
(c) Sister
(d) Sister-in-law

Q47. The day before yesterday was Saturday. What day will it be the day after tomorrow ?

(a) Wednesday
(b) Tuesday
(c) Thursday
(d) Friday

Q48. Find the correct option form the following that has the same relationship as FISH : SCHOOL.

(a) Cow : Farm
(b) Herd : Peacock
(c) Wolf : Pack
(d) Elephant : Jungle

Q49. A pair of shoes always has ____

(a) Laces
(b) Leather
(c) Soles
(d) Strap

Q50. Complete the sequence DEF, DEF2, DE2F2, ____, D2E2F3

(a) D3EF3
(b) DEF3
(c) D3E3F
(d) D2E2F2

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ANSWER KEY

1 d	2 d	3 d	4 d	5 d	6 a	7 d	8 c	9 b	10 b
11 b	12 b	13 d	14 b	15 d	16 a	17 b	18 b	19 a	20 b
21 b	22 c	23 d	24 a	25 d	26 d	27 b	28 c	29 d	30 c
31 c	32 a	33 b	34 a	35 c	36 c	37 c	38 c	39 c	40 d
41 d	42 d	43 b	44 d	45 a	46 a	47 a	48 c	49 c	50 d

SOLUTIONS

Q1. Answer: (d) Karnataka

The correct answer is Karnataka.

• Kambala is an annual buffalo race held traditionally in the Karnataka state of India.

Key Points

• Kambala is an annual buffalo race held in the southwestern Indian state of Karnataka.

• Traditionally, it is sponsored by local Tuluva landlords and households in the coastal districts of Dakshina Kannada and Udupi of Karnataka and Kasaragod of Kerala and Kannada landlords of Kundapura region.

• Traditional Kambala was non-competitive, and the pair was run one by one.

• In modern Kambala, the contest generally takes place between two pairs of buffaloes.

• In villages such as Vandaro and Choradi, there is also a ritualistic aspect, as farmers race their buffaloes to give thanks for protecting them from diseases.

Important Points

• The event was recently in news, when after the ban on Jallikattu; the Animal Welfare Board of India (AWBI) has asked the Karnataka government to ban the race citing reasons of cruelty to animals.

Q2. Answer: (d) 0

The correct answer is 0°.

• The prime meridian passes through Greenwich in England which is zero degrees longitude. So It is also called the Greenwich Meridian.

Important Points

• For locating places on a map, imaginary lines called latitudes and longitudes are drawn.

• Longitudes are vertical lines that run from north to south.

• Prime Meridian is the 0° longitude that divides Earth into the Eastern and Western hemispheres.

Additional Information

• Opposite of prime meridian is IDL which is at 180-degree longitude.

• IDL is a zigzag line and passes through Bering Strait.

• When one crosses the International Date Line, the day and date changes.

• When one crosses IDL to the west, one loses the day.

• When one goes from west to east, one gains a day.

• 1 degree of longitude is equal to 4 minutes.

• 15-degree longitude is 1 hour.

• One degree of latitude is 111 km on Earth's surface.

Q3. Answer: (d) Jaduguda

The correct answer is Jaduguda.

Key Points

• The first Uranium mine of India, the Jaduguda mines, is located in Jharkhand.

• The Jaduguda Mine is a uranium mine situated in Jaduguda village, in Jharkhand Indian state's Purbi Singhbhum district.

• It started operation in 1967 and became India's first uranium mine.

• The deposits were found at that mine in 1951.

• India possesses only two functional uranium mines as of March 2012, including this Jaduguda Mine.

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• The Jaduguda mine provides up to 25 percent of the raw materials required to power the nuclear reactors in India.

Q4. Answer: (d) Meghalaya

The correct answer is Meghalaya.

Key Points

• The Garo Khasi And Jayantia Hills were formed at the same age as the Malwa Plateau.

• The Garo, Khasi, And Jayantia Hills are located in Meghalaya.

• The hills are named after the tribes found particularly in that region.

• Meghalaya is also known as the Scotland of the East.

Additional Information

• Garo Hills:

• It is part of the Garo- Khasi range in Meghalaya, India.

• The range is part of the Meghalaya Subtropical forest ecoregion. The Garo's call themselves A.chik (locally used).

• Nokrek Peak is the highest peak of Garo hills.

• Khasi Hills:

• It is located in the Shillong Plateau in the Meghalaya State of India.

• The Khasi hills are a part of the Garo-Khasi-Jaintia range and connect with the Purvanchal range and larger Patkai range further east.

• The highest peak is Lum Shillong which is 1968m high.

• Jaintia Hills:

• The Jaintia hills are located further to the east of Khasi Hills in the state of Meghalaya.

• It is a part of the Patkai hill range that extends across the Indo- Myanmar borders.

Important Tribes of India:

Q5. Answer: (d) Bombay

The correct answer is Bombay.

• The Indian National Congress conducted its first session in Bombay in 1885 at the initiative of retired Civil Service officer Allan Octavian Hume.

Key Points

• The first session of the INC was proposed at Poona, but because of an outbreak of plague in Poona, the venue was shifted to Bombay.

• And in the first session that was held in Bombay, at the ‘Gokuldas Tejpal Sanskrit Pathshala,’ only 72 delegates had participated and most of them belonged to a background of lawyers, and there weren’t many women in this session.

Additional Information

• In the very first session, the Early Nationalists, presented 9 resolutions before the British, and Lord Dufferin who was closely watching the activities of the Indian National Congress called the organization a ‘microscopic minority.

• Thus one can say that the ‘benevolent neutrality of Lord Dufferin turned to ‘bitter hostility.

• The moderates didn’t want ‘complete independence’, they mainly wanted ‘Indianisation’ of the services, their effort was that India should be governed by Indians, along with collaboration by the British. So, even in 1904, the popular demands from the moderates were representation in the House of Commons- so that the integration of the British and Indian political system could be achieved.

• The session was held under the presidentship of Womesh Chandra Banerjee who was a prominent Bengali barrister. The meeting was attended by 72 delegates from all over India. This meeting was held in December 1885 while the All-India National Conference was also holding its meeting in Calcutta.

Q6. Answer: (a) Mussoorie

The correct answer is Mussoorie.

Key Points

• Lal Bahadur Shastri National Academy of Administration is located in Mussoorie.

• Foundational courses and refresher courses organized by the National Academy of Administration, Mussoorie is an example of pre-entry training for IAS.

• Lal Bahadur Shastri National Academy of Administration:-

• It is the premier training institution in our country.

• It was established in 1959 at Mussoorie, a famous hill station in Uttaranchal as the National Academy of Administration.

• In 1972, it was renamed the Lal Bahadur Shastri National Academy of Administration.

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• Presently, it is under the Ministry of Personnel.
• It provides the following training courses.
• A combined four months foundational course for all the probationers of All India Services and Group-A Central Services (except the Central Secretariat Service).
• Professional training for the IAS probationers (in two spells).
• In-service training courses for officers of All-India and Central Services (Group-A).
• These are of two types:
• Management Development Programme of 4 weeks duration for officers of 11 to 16 years of service.
• Executive Development Programme of 6 weeks duration for officers of 6 to 10 years of service.
• Short courses of one week to the one-month duration for senior officers.

Additional Information

• National Academy of Administration It is the premier training institution in our country.
• It was established in 1959 at Mussoorie, a famous hill station in Uttaranchal.
• In 1972, it was renamed the Lal Bahadur Shastri National Academy of Administration.
• Presently, it is under the Ministry of Personnel.
• IPS Training
• The Indian Police Service (IPS) trainees move on to the Sardar Vallabhbhai Patel National Police Academy in Hyderabad.
• Police Training College is an example of Departmental Training.
• IFoS Training
• The Indian Forest Service (IFoS) officers go to the Indira Gandhi National Forest Academy in Dehradun for their training.
• IFS Training
• Other group-A Central Services officers such as the Indian Foreign Service (IFS) proceed to the Foreign Service Institute (FSI) India located in New Delhi.
• IRS Training
• Indian Revenue Services (IRS) officers move on to either the National Academy of Direct Taxes, Nagpur or the National Academy of Customs, Excise & Narcotics, Faridabad depending on the branch they are allocated to go. (there are two branches of the IRS: IRS – Income Tax; and IRS – Customs and Central Excise).

Q7. Answer: (d) 6 Years

The correct answer is 6.

Key Points

• The tenure of a member of the Rajya Sabha is 6 years.
• Rajya Sabha or The Council of States or the Upper house.
• Rajya Sabha is a permanent body i.e. it is not subject to dissolution.
• One-third of the members retire every second year and are replaced by newly elected members.
• The Vice President of India is the ex-officio Chairman of Rajya Sabha.
• Article 80 of the Constitution lays down the maximum strength of Rajya Sabha as 250, out of which 12 members are nominated by President.
• The present strength of the Rajya Sabha is 245 (233 + 12 nominated by the President).
• The representatives of the States and of the Union Territories in the Rajya Sabha are elected by the method of indirect election.
• They are elected by the elected members of the Legislative Assembly of that State and of that Union Territory.
• The Council of States is designed to maintain the federal character of the country.
• The number of members from a state depends on the population of the state.

Important Points

• There shall be a Parliament for the Union which shall consist of the President and two Houses to be known respectively as the Council of States and the House of the People (Article 79).
• Lok Sabha or the House of the people or the Lower house.
• The term of the Lok Sabha, unless dissolved, is five years from the date appointed for its first meeting.
• It is composed of representatives of the people chosen by direct election.
• The maximum strength of the House envisaged by the Constitution is 552.
• Although it is known as the lower house it has more powers than the Rajya Sabha as it is directly elected by the people.
• The joint sitting of both houses is chaired by the speaker of the Lok Sabha.

Source:-https://rajyasabha.nic.in/rsnew/about_parliament/rajya_sabha_introduction.asp

Source:-https://www.india.gov.in/my-government/indian-parliament/lok-sabha

Q8. Answer: (c) Indira Gandhi canal

The correct answer is the Indira Gandhi canal.

• Indira Gandhi canal:

• This Canal is India's longest canal and the world's biggest irrigation project. Hence, Option 4 is correct.

• Indira Gandhi Canal is 649 km long and consists of Rajasthan feeder canal and Rajasthan main canal and runs 167 km in Punjab and Haryana and 492 km in Rajasthan.

• It is a huge canal in northwestern India that carries water from the Harike Barrage on the Sutlej River to the Thar Desert of Rajasthan.

Key Points

• A canal:

• It is a man-made waterway that enables the movement of boats and ships from one body of water to another.

• Canals are also used for irrigation and other human uses to convey water.

• Canals can be divided into two categories, waterways used for navigation or transport, and water ducts used for irrigation and consumption of drinking water and other general uses.

• The canal is also known as navigation when it parallels the river and separates part of its waters and drainage basin and leverages its resources by constructing dams and locks to raise and lengthen its slow water levels while remaining in its valley.

Additional Information

• Upper Bari Doab canal :

• Originates at Madhopur, near Pathankot.

• t was the first canal to be excavated for irrigation purposes in Punjab; at that time, however, it was simply known as the Bari Doab Canal system.

• The prefix Upper was only added when a second canal was dug, known as the Lower Bari Doab Canal. Emperor Shah Jahan dug this 130-mile-long canal to carry water from the River Ravi to his garden in Lahore.

• Yamuna canal:

• Satluj Yamuna Link Canal or SYL, as it is popularly called, is a 214 kilometre (133 mi) long canal under construction in India to connect the rivers Sutlej and Yamuna.

• The plan did, however, face challenges and was referred to the Supreme Court of India.

• River water sharing between the states of Punjab and Haryana is established.

• Sirhind canal:

• The Sirhind Canal is a large irrigation canal in Punjab state, India that carries water from the Sutlej River.

• It is one of the Indus river system's oldest and largest irrigation works and was inaugurated in 1882 CE.

• The canal, which was built between 1958 and 1961, is 149.53 km long in the Punjab districts of Ferozepur, Muktsar, and Faridkot.

• To be agriculturally viable, Rajasthan requires extensive irrigation.

• The state receives a great deal of water from the Punjab Rivers, from the Western Yamuna Canal in Haryana and the Agra Canal in Uttar Pradesh, and from the Gujarat and Madhya Pradesh projects of Sabarmati and Narmada Sagar.

Q9. Answer: (b) Razia Sultan

The correct answer is Razia Sultan.

Key Points

• Razia Sultana was the first and last woman Sultanate of India and ruled the court of Delhi from the end of 1236 to 1240.

• The only ever woman to do so, she defied all odds to occupy the throne, including overcoming conflicts over her gender and her slave ancestry.

• The fifth Mamluk dynasty ruler, history deems Razia Sultan as one of the very few female rulers in the history of Islamic civilizations across the world.

• During her reign, she ordered coins be minted with her title as “Pillar of Women, Queen of the Times, Sultan Razia, daughter of Shamsuddin Iltumish.”

Additional Information

• Chand Bibi

• Sultana Chand Bibi was an Indian Muslim ruler and warrior.

• She acted as the Regent of Bijapur Sultanate and Ahmednagar Sultanate in current day Maharashtra.

• Chand Bibi is best known for defending Ahmednagar against the Mughal forces of Emperor Akbar in 1595.

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• Noor Jahan

• Nur Jahan (born Mehr-un-Nissa, 31 May 1577 – 18 December 1645 was the twentieth (and last) wife of the Mughal emperor Jahangir.

• She was a married woman when Prince Salim (the future Emperor Jahangir), Akbar's eldest son, fell in love with her.

• Nur Jahan was born Mehr-un-Nissa, the daughter of a Grand Vizier (Minister) who served under Akbar.

• Mumtaz Mahal

• Mumtaz Mahal was the Empress consort of the Mughal Empire from 19 January 1628 to 17 June 1631 as the chief consort of the Mughal emperor Shah Jahan.

• The Taj Mahal in Agra often cited as one of the Wonders of the World, was commissioned by her husband to act as her tomb.

Q10. Answer: (b) Chennai

The correct answer is Chennai.

Key Points

• Chennai International Airport is an international airport serving the city of Chennai, Tamil Nadu.

• It is located in Tirusulam, 21 km (13 mi) from the city centre. Chennai International Airport is the sixth busiest airport in India.

• It is also the 49th busiest airport in Asia making it one of the four major airports in India under the top 50 list. In the financial year 2021, the airport handled 5.49 million passengers.

All the international airports in India:

Q11. Answer: (b) Gaddi

The correct answer is Gaddi.

Key Points

• Gaddi tribes are famous tribes of the Dhauladhar range.

• Gaddi tribes are mainly living in Himachal Pradesh and Jammu and Kashmir regions.

• Gaddi is a generic name and it includes Khatris, Brahmins, and Rajput.

Additional Information

• The Arbore tribe is a native ethnic group found in southern Ethiopia.

• Lepcha tribes are found in Bhutan, Tibet, Darjeeling, eastern Nepal, and in the hills of West Bengal.

• Tharu tribes are found in Northern India and southern Nepal.

Important Tribes of India:

Q12. Answer: (b) Gandhara

The correct answer is Gandhara.

Key Points

• Gandhara is not directly associated with the life of Buddha. It flourished during the ruling of the Mauryan Period, especially during the period of Ashoka.

• Rajgir was the early capital of Magadh Janapada, which was ruled by Bimbisara during Buddha’s time.

• Maha Maya, the mother of Gautama Buddha belongs to the Kosala Dynasty.

Additional Information

• Buddhism:

• Founded by Siddhartha Gautam.

• He was born in Lumbini near Nepal in 563 BC.

• After 49 days of meditation under a pipal tree, Gautama attained Bodhi (enlightenment) at Bodhgaya in Bihar.

• Buddha gave his first sermon at Sarnath, UP and the event is known as Dharma-Chakra-Pravartana.

• He followed 'Madhyam Marg' or the middle path

• He died at Kushinagar, UP and the event is known as Mahaparinirvana.

• The Tri Ratnas of Buddhism are Buddha (spiritual potential), Dhamma (teachings of Buddha), and Sangha (order of monks who follow Buddhism).

Sl. No.	Year	Place	President
First Buddhist Council	483 BC	Sattapani Cave(Rajgriha)	Mahakassapa
Second Buddhist Council	383 BC	Vaishali	Sabakmir
Third Buddhist Council	250 BC	Patliputra	Moggaliputra Tissa

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Fourth Buddhist Council	1st Century AD	Kundalvana (Kashmir)	Vasumitra

Q13. Answer: (d) Saturated air

The correct answer is Saturated air.

• Saturated air has a relative humidity of 100%.

• Humidity is the amount of water vapor in the air.

• If there is a lot of water vapor in the air, the humidity will be high. The higher the humidity, the wetter it feels outside.

• There are three main measurements of humidity: relative, absolute, and specific.

Additional Information

• Absolute humidity:

• Its unit is grams of water vapor per cubic meter volume of air.

• It is a measure of the actual amount of water vapor in the air, regardless of the air's temperature.

• The higher the amount of water vapor, the higher the absolute humidity.

• For example, a maximum of about 30 grams of water vapor can exist in a cubic meter volume of air with a temperature in the middle 80s.

• Relative humidity:

• It is expressed as a percent, which is a measure of the amount of water vapor that air is holding compared to the amount it can hold at a specific temperature.

• Warm air can possess more water vapor (moisture) than cold air, so with the same amount of absolute/specific humidity, air will have higher relative humidity.

• Relative humidity of 50% means the air holds on that day (specific temperature) holds 50% of the water needed for the air to be saturated.

• The relative humidity of an air-water mixture is also defined as the ratio of the partial pressure of water vapor in the mixture to the saturated vapor pressure of water at a given temperature.

• Thus the relative humidity of air is a function of both water content and temperature.

• Specific humidity:

• Specific humidity refers to the weight of water vapor contained in a unit weight (amount) of air (expressed as grams of water vapor per kilogram of air).

• Absolute and specific humidity are quite similar in concept.

Q14. Answer: (b) Syndicate Bank

The correct answer is Syndicate Bank.

Key Points

• Syndicate Bank was founded in 1925 in Manipal, Udupi, Princely State of Mysore.

• Headquarters are located in Manipal, Karnataka.

• It was founded by Upendra Ananth Pai, T. M. A. Pai, and Vaman Srinivas Kudva.

• Syndicate Bank was nationalized in 1969.

• At the time of its establishment, the bank was known as Canara Industrial and Banking Syndicate Limited.

• Syndicate bank, along with the other 13 major commercial banks of India, was nationalized on 19 July 1969, by the Government of India.

• The Bank was headquartered in the university town of Manipal, India.

• On 1st April 2020, the bank was merged into Canara Bank.

Additional Information

List of banks with their headquarters.

Banks	Headquarters
Andhra Bank	Hyderabad
Axis Bank	Mumbai
Bank of Baroda (Vijaya Bank & Dena Bank)	Vadodara
Bank of India	Mumbai
Bank of Maharashtra	Pune

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Bandhan Bank	Kolkata
Canara Bank (Syndicate Bank)	Bengaluru
Central Bank of India	Mumbai
Corporation Bank	Mangalore
Citi Union Bank	Tamil Nadu
Dhanlaxmi Bank	Kerala
Federal Bank	Kerala
HDFC Bank	Mumbai
IDBI Bank	Mumbai
Indian Bank (Allahabad Bank)	Chennai
Indian Overseas Bank	Chennai
ICICI Bank	Mumbai
IDFC Bank	Mumbai
IndusInd Bank	Mumbai
Karnataka Bank	Mangaluru
Karur Vysya Bank	Tamil Nadu
Kotak Mahindra Bank	Mumbai
Lakshmi Vilas Bank	Chennai
Punjab National Bank (Oriental Bank of Commerce & United Bank of India)	New Delhi
Punjab & Sind Bank	New Delhi
RBL Bank (Ratnakar)	Mumbai
State Bank of India	Mumbai
Syndicate Bank	Manipal, Karnataka
South Indian Bank	Thrissur, Kerala
UCO Bank	Kolkata
Union Bank of India	Mumbai
Yes Bank	Mumbai

Q15. Answer: (d) Swami Vivekananda

The Correct Answer is Swami Vivekananda.

Key Points

• Swami Vivekananda participated at the Parliament of Religions held in Chicago (USA) in September 1893.

• The first Parliament of the World's Religions was held in Chicago in 1893.

• It marked the first concerted effort to bring all the different religions to a common platform where leaders and representatives of all faiths were able to communicate and share their views.

• Swami Vivekananda won wide recognition for India's ancient culture, philosophy, and faith through his powerful words.

• The 1893 Parliament of the World's Religions was attended by 400 men and women, representing 41 religious traditions.

• It was there that Catholicism and Judaism were recognized as major American religions, and that Hinduism and Buddhism were first introduced to the West

Additional Information.

• Swami Vivekananda was born in 1863.

• He founded the Ramakrishna Mission in May 1897.

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• He died in 1902 at Belur Math in present-day West Bengal.
• He was influenced by Ramakrishna Paramahansa who was also his Guru.

Q16. Answer: (a) 1085°C

The correct answer is 1085°C.

Key Points

Melting and Melting Point:

• The process of change of state from solid to liquid is called melting.
• The temperature at which a solid starts to liquify is known as the melting point of that solid.
• The melting point of a substance at atmospheric pressure is called a normal melting point.

Metal	Melting Point (in °C)
Tungsten	3380
Silicon	1414
Mild Steel	1370
Copper	1085
Aluminum	659
Titanium	1668
Gold	1063
Silver	951

Q17. Answer: (b) 5.5

The correct answer is 5.5.

Key Points

• Tooth decay starts when the pH of the mouth is lower than 5.5.
• Tooth enamel, made up of calcium phosphate is the hardest substance in the body.
• It does not dissolve in water but is corroded when the pH in the mouth is below 5.5.
• Bacteria present in the mouth produce acids by the degradation of sugar and food particles remaining in the mouth after eating.
• The best way to prevent this is to clean the mouth after eating food.
• At the pH of 5.5, the teeth risk of cavities and tooth decay begins in the mouth.

Additional Information

• The role of toothpaste to prevent tooth decay is as follows-
• A healthy mouth is neutral Ph range. A teeth can actually become stronger and re-mineralize when the Ph of mouth is 7.5 or above.
• Bacteria present in the mouth produce acids by the degradation of sugar and food particles remaining in the mouth after eating.
• Using toothpaste, which is generally basic, for cleaning the teeth can neutralize the excess acid and prevent tooth decay.
• Fluoride is a mineral that can prevent tooth decay from progressing. It can even reverse or stop, early tooth decay. Hence most of the toothpastes have fluoride ions.
• Also, tooth-pastes have salts in them which decreases the acidity of mouth.

Q18. Answer: (b) C12H22O11

The correct answer is C12H22O_(11).

Key Points

• The molecular formula for sucrose is C12H22O11.
• Cane sugar is called Sucrose, as it is obtained from sugarcane.
• Sucrose is also called Table Sugar. It is basically a nonreducing disaccharide composed of glucose and fructose.
• The fructose and glucose molecules are connected via a glycosidic bond.
• It can also undergo a combustion reaction to yield carbon dioxide and water.
• Commercially, it is obtained from sugarcane, sugar beet, etc.
• It is extensively used as a sweetener.
• It also serves as an antioxidant and a food preservative.

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Additional Information

Sugar	Common name	Reason
Glucose	Grape sugar	Obtained from ripe grapes
Sucrose	Cane sugar	Obtained from sugarcane
Fructose	Fruit sugar	Obtained from several fruits like berries

Q19. Answer: (a) Low atmospheric pressure

The correct answer is Low atmospheric pressure.

Key Points

• We know that atmospheric pressure decreases with high altitude.

• The blood pressure is counterbalanced with the atmospheric pressure at normal altitude.

• But, at higher altitudes, atmospheric pressure is lower compared to the pressure at the surface of the earth.

• So, at higher altitudes, the blood pressure inside our body is more than the atmospheric pressure which forces the blood to ooze out from openings like the nose.

• Hence, bleeding starts from body parts having weak skin like the nose and eyes (in severe cases).

• In some cases, internal bleeding may also occur from capillaries.

Q20. Answer: (b) Coal

The correct answer is Coal.

Key Points

• Primary fuels are fuels that are found in nature and can be extracted, captured, cleaned, or graded without any sort of energy conversion or transformation process.

• Coal is a Primary fuel because it can be extracted directly without any sort of energy conversion or transformation process.

• There are other primary energy sources like wind and solar power.

• Please note that there is a difference between fuel and energy sources.

• Fuels are anything that can be burned to release energy. Energy sources on the other hand provide energy that can be transformed into usable forms to meet our needs (burning not required necessarily).

• All fuels are energy sources but all energy sources are not fuels.

Image of Primary Fuel:

Q21. Answer: (b) Lymphocytes

The correct answer is Lymphocytes.

Key Points

• Lymphocytes: These are a type of white blood cell that provides an immune response to the body.

• Lymphocytes, which are part of the lymphatic system collect excess fluid that drains from cells and tissue throughout your body and returns it to your bloodstream, which is then recirculated through your body.

• Hence, we can say that Lymphocytes help in the overall circulation of blood by maintaining the concentration of blood.

Additional Information

• Lymphocytes are mainly of two types: B-lymphocytes & T-lymphocytes.

• Both B & T-lymphocytes originates in the bone marrow.

• T-lymphocytes move to the thymus for maturation while B-lymphocytes matures in the bone marrow only.

• The B-lymphocytes cells produce antibodies to fight foreign pathogens like viruses & bacteria entering the body.

• The T-lymphocytes act on self-body cells, which have become cancerous or taken over by viruses and destroys them.

Image of Circulation of Blood:

Q22. Answer: (c) Red light

The correct answer is Red.

Key Points

About Photosynthesis:

• Photosynthesis is the process in which Green plants transform (Light energy into Chemical energy). During the time of photosynthesis in green plants, light energy is captured and used to convert (Carbon dioxideCO_2, Water H_2O, and minerals) into Oxygen and energy-rich organic compounds.

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• The Oxidation of water takes place to form (Oxygen O2) and the reduction of Carbon dioxide(CO2) takes place to form Glucose.

• During the time of Photosynthesis, the Red color is (maximum) and the Violet color attends the (least) color of light. Because Light is absorbed by Photosystem (Membrane-Bound).

• It absorbs (Infrared and Red light). On the other hand, Blue light is absorbed by (Chlorophyll) and Carotenoids but some of the carotenoids are not found in Chloroplasts.

• Carotenoids are constituted by the (Carotenes and Xanthophylls) where carotenes do not transfer absorbed energy as it is effective to (Chlorophyll).

• Hence, some portion of the absorbed light falling under (Blue light) is not passed to the photosynthesis while all of the Red light is absorbed by Chlorophyll and it is effectively used.

Image of the Electromagnetic spectrum of light:

Notes:

• The term Photosynthesis was first coined by Jan Ingenhousz. He is known as the "Father of Photosynthesis".

Q23. Answer: (d) Light year

The correct answer is Light year.

Key Points

• Light year: The distance travelled by light in one year is called a light-year.

• It is a unit of astronomical distance.

• 1 light-year = 9.461 trillion kilometres which is a very large distance.

• Hence option 4 is correct.

Additional Information

• As defined, a light-year is a distance travelled by light in free space in one year.

• Also, the speed of light = 3* 10^8 m/s

• Time = 1 year or 365 days

• Hence, by formula Distance = Speed / time

• We got that, one light-year = 9.46* 10^(15) metres

• Or, 1 light-year = 9.461 trillion kilometres.

Q24. Answer: (a) Plants life

The correct answer is Plants life.

Key Points

• Biology is the science of life.

• Biology can be divided into several branches like Botany, Zoology, microbiology, virology, genetics, ecology, morphology, biotechnology, etc.

• Botany: It is the scientific study of plants. Botany is further divided into many branches: Morphology, histology, anatomy, plant physiology, taxonomy, plant breeding, plant embryology, etc

Additional Information

• Zoology: It is the study of both living and extinct animals.

• Physiology: It is the study of how the human body works.

• Ornithology: It is the study of Birds.

Q25. Answer: (d) Abacus

The correct answer is Abacus.

Key Points

• The abacus is one of the counting devices invented in ancient times to help count large numbers, but it is believed that the abacus was first used by the Babylonians as early as 2,400 B.C.

• The abacus was used in Europe, China, and Russia, centuries before the adoption of the written Hindu-Arabic numeral system.

• The abacus (plural abaci or abacuses), also called a counting frame, is a calculating tool that has been used since ancient times and is still in use today.

• It was used in the ancient Near East, Europe, China, and Russia, centuries before the adoption of the written Arabic numeral system.

Additional Information

• The primary objective of using Abacus is:

• To enhance the brain skills of the learners.

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• It is mainly used for counting, addition, subtraction, multiplication, and division.
• It can also be used to calculate decimals, square root, and cube root.
• It makes arithmetic calculations easier and simpler.
• It enhances spatial ability which helps in other subjects too like Sciences, Engineering, etc.
• It is a great tool to be used with dyslexic students.
• It allows young learners to learn concepts of numbers and place value easily.
• Hence, it can be concluded that the abacus is used for lower classes for counting.

Q26. Answer: (d) Samuel Colt

The correct answer is Samuel Colt.

Key Points

• Samuel Colt was an American industrialist and businessman who is credited with the invention of the revolver.
• Edward Jenner was a British physician who is credited with the discovery of the smallpox vaccine.
• Alexander Fleming is a Scottish physician and microbiologist who is credited with the discovery of penicillin.
• Albert Einstein was a German-born physicist who is known for his theory of relativity.

Additional Information

Scientist	Product
Theodor Bergmann	Firearms, Bergmann Pistol
Henry Deringer	Derringer pistol
John Browning	Military and civilian firearms, cartridges, and gun mechanisms

Q27. Answer: (b) Frequency

The correct answer is Frequency.

Key Points

• Frequency: The number of vibrations at which sound waves travel per second is called the frequency of the sound wave.
• It is denoted by f or ν.
• The SI unit of frequency is Hertz (Hz).
• The Hertz is the standard unit for measuring the frequency of a wave.
• One Hertz is equal to one cycle per second.
• Frequency is the number of occurrences of a repeating event per unit of time.
• It is also referred to as temporal frequency, which emphasizes the contrast between spatial frequency and angular frequency.
• Frequency is measured in units of hertz which is equal to one occurrence of a repeating event per second.
• Formula of Frequency is f = 1/T (f =frequency and T = period).

Additional Information

Physical Quantity	Unit
Length	meter
Force	newton
Velocity	mt/sec
Time	sec
Frequency	hertz
Mass	kilogram
Lens	diopter
Radiant flux	watt
Sound	decibel

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Q28. Answer: (c) It is a science of movement in a flow of air or gas

The correct answer is It is a science of movement in a flow of air and gas.

Key Points

• Aerodynamics is the way air moves around things. The rules of aerodynamics explain how an airplane is able to fly.

• Anything that moves through air reacts to aerodynamics. A rocket blasting off the launch pad and a kite in the sky react to aerodynamics. Aerodynamics even acts on cars, since air flows around cars.

Additional Information

• The Four Forces of Flight are-

• Lift,

• weight,

• thrust and

• drag.

• These forces make an object move up and down, and faster or slower. How much of each force there are changes how the object moves through the air.

• Weight- Everything on Earth has weight. This force comes from gravity pulling down on objects. To fly, an aircraft needs something to push it in the opposite direction from gravity. The weight of an object controls how strong the push has to be. A kite needs a lot less upward push than a jumbo jet does.

• Lift- It is the push that lets something move up. It is the force that is the opposite of weight. Everything that flies must have a lift. For an aircraft to move upward, it must have more lift than weight. A hot air balloon has a lift because the hot air inside is lighter than the air around it. Hot air rises and carries the balloon with it. A helicopter's lift comes from the rotor blades at the top of the helicopter. Their motion through the air moves the helicopter upward. Lift for an airplane comes from its wings.

• Drag- It is a force that tries to slow something down. It makes it hard for an object to move. It is harder to walk or run through water than through air. That is because water causes more drag than air. The shape of an object also changes the amount of drag. Most round surfaces have less drag than flat ones. Narrow surfaces usually have less drag than wide ones. The more air that hits a surface, the more drag it makes.

• Thrust- It is the force that is the opposite of drag. Thrust is the push that moves something forward. For an aircraft to keep moving forward, it must have more thrust than drag. A small airplane might get its thrust from a propeller. A larger airplane might get its thrust from jet engines. A glider does not have thrust. It can only fly until the drag causes it to slow down and land.

Q29. Answer: (d) John McCarthy

The correct answer is John McCarthy.

Key Points

• The Father of Artificial Intelligence is John McCarthy.

• John McCarthy (September 4, 1927 – October 24, 2011) was an American computer scientist and cognitive scientist.

• McCarthy was one of the founders of the discipline of artificial intelligence.

• He co-authored the document that coined the term "artificial intelligence" (AI), developed the Lisp programming language family, significantly influenced the design of the ALGOL programming language, popularized time-sharing, invented garbage collection, and was very influential in the early development of AI.

Additional Information

• Father of programming language - Dennis Ritchie

• Father of Robotics - Joseph F. Engelberger

• Father of Computer - Charles Babbage

• Mother of Computer - Ada Lovelace

Q30. Answer: (c) Observing and photographing the sun's corona

The correct answer is Observing and photographing the sun's corona.

Key Points

• A coronagraph is a specialized instrument designed to block out the light of the sun so that researchers can glimpse the burning star's hot, thin, outermost layer, called the corona.

• A French astronomer Bernard Lyot invented the coronagraph in the 1930s, according to the American Museum of Natural History, and the instrument has since found many other uses.

• The sun's corona is normally visible only during solar eclipses when the moon's shadow covers the bright central layers of our parent star and allows its dimmer corona to appear.

• A coronagraph mimics this natural phenomenon with a circular mask that sits inside a telescope and selectively blocks the bulk of the sun's light.

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• More recently, the development of a new class of coronagraph has allowed scientists to directly view the light from distant exoplanets.

• Planetary companions are often between a thousand and a billion times fainter than the stars they orbit, making it nearly impossible to image them without blocking light from the overpowering star.

• In such cases, coronagraph has proved itself to be of immense importance.

Image of Cornograph:

Q31. Answer: (c) 25%

Given

A person sells 320 mangoes at the cost price of 400 mangoes

Concept used

Profit = SP - CP

Profit % = (Profit / cp) × 100

Calculation

Let the cost price of one mango be Rs.1

Cost price of 320 mangoes = Rs.320

Selling price = Rs.400

Gain = 400 - 320

Gain = Rs.80

Profit% = (80/320) × 100

Profit% = (1/4) × 100

Profit% = 25%

Therefore The profit percentage is 25%.

Q32. Answer: (a) 630

Calculation:

30% of (1500 + 600)

=> 30/100 × 2100

=> 30 × 21

=> 630

Therefore The value of 30% of (1500 + 600) is 630.

Q33. Answer: (b) 225

Given:

The perimeter of triangle = 600 m

The ratio of sides of triangle = 12 : 13 : 15

Concept used:

Sum of all sides of triangle = Perimeter of triangle

Calculation:

Sum of all sides of the triangle

=> 12x + 13x + 15x = 40x

=> 40x = 600

=> x = 15

Longest side = 15x

=> 15 × 15 = 225 cm

Therefore The longest side is 225 cm.

Q34. Answer: (a) 3 km/h and 1.5 km/h

Given:

A motor boat takes 2 h to travel a distance of 9 km down the current. It takes 6 h to travel the same against the current

Formula used:

Speed = Distance / Time

Speed of boat downstream = (x + y) km/hr

Speed of boat upstream = (x - y) km/hr

Calculation

Let the speed of boat in still water be x km/hr

Speed of current be y km/hr

Speed of boat downstream

=> x + y = 9/2

=> x + y = 4.5 km/hr - - (i)

Speed of boat against the current

=> x - y = 9/6

=> x - y = 1.5 km/hr - - (ii)

Solving equations i and ii

Add eqn i and ii we get

=> x = (4.5 + 1.5) / 2

=> x = 3 km/hr

Substracting eqn 1 from 2 we get

=> y = (4.5 - 1.5) / 2

=> y = 1.5 km/hr

Speed of boat in still water = 3 km/hr

Speed of boat against the current = 1.5 km/hr

Q35. Answer: (c) 120

Given:

Word = ARISE

Formula Used:

n! = n(n - 1)(n - 2).....3.2.1

Calculation

Here number of letters in word arise is 5

Different ways in which arise can be arranged is 5!

5! = 5 × 4 × 3 × 2 × 1

5! = 120

Therefore The way of arrange of the word ARISE is 120.

Q36. Answer: (c) sometimes rational and sometimes irrational number

Concept used:

Any number that can be represented in the form of p/q is a rational number.

An irrational number is a real number that cannot be expressed as a ratio of integers, for example, √2

Calculation:

The product of rational and irrational numbers is always irrational if the rational number is non zero

Example :

Rational number = 4

irrational number = √2

Rational × irrational = 4√2

The product of rational and irrational numbers is always rational if the rational number is zero

Second case Rational number = 0

Irrational number = √3

Rational × irrational = 0 × √3 = 0

Additional Information

• Rational numbers are those numbers that show the ratio of numbers or the number which we get after dividing it by any two integers.

• Irrational numbers are those numbers that we can not represent in the form of simple fractions a/b, and b is not equal to zero.

• When we add any two rational numbers then their sum will always remain rational.

• But if we add an irrational number with a rational number then the sum will always be an irrational number.

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Q37. Answer: (c) 25

Calculation

31, 7, 25, 13, 19, 19, 13 _

Here we can see the difference of six in first, third, fifth and same in the second, fourth and sixth term

=> 7 + 6 = 13

=> 13 + 6 = 19

=> 19 + 6 = 25

Therefore The next number is 25

Q38. Answer: (c) 11

Given:

Number of diagonal = 44

Formula Used:

Number of diagonal = Number of sides (Number of sides - 3)/2

Calculation:

Let assume the number of sides be x

Number of diagonal = Number of sides (Number of sides - 3)/2

=> 44 = x (x - 3)/2

=> 88 = x2 - 3x

=> x2 - 3x - 88 = 0

=> x2 - 11x + 8x - 88 = 0

=> x(x - 11) + 8(x - 11) = 0

=> (x - 11)(x + 8) = 0

=> x - 11 = 0 or x + 8 = 0

=> x = 11, or -8

Sides can't be negative,

Side of polygon = 11

Therefore The number of sides is 11.

Q39. Answer: (c) 0

Formula used:

Probability of occurrence of the event:

P(E) = (n(E))/(n(S))

Where,

n(E) = Number of favorable outcome

n(S) = Number of possible outcome

Calculation:

According to the question, the event cannot occur

=> n(E) = 0

Hence, r probability required

P(E) = (n(E))/(n(S)) = 0/(n(S)) = 0

Therefore If there is no event then its probability is zero.

Q40. Answer: (d) 14

Given:

Difference of two numbers is 2

Difference of their squares is 28.

Concept used:

a2 - b2 = (a - b) (a + b)

Calculation:

Let the two number be x and y

=> x - y = 2 - - (i)

Difference of their squares

=> x2 - y2 = 28 - - (ii)
Using the formulae
=> 28 = 2 (x + y)
=> x + y = 28/2
=> x + y = 14
Therefore The sun of the number is 14.

Q41. Answer: (d) 1.589 grams

Concept used
1000 miligram = 1 gram
Calculation
1000 miligram = 1 gram
1589 miligram = ?
=> 1589/1000 = 1.589 grams

Q42. Answer: (d) 41

Given
A batsman in his 12th inning makes a score of 63 runs and there by increase his average score by 2
Concept used
Average = Sum of the observation/Total observation
Calculation
Let the total number of runs in 11 innings be "x".
the average number of runs in 11 innings is x/11
Let the total number of runs in 12 innings after scoring 63 runs in 12th innings be x + 63.
Average number of runs in 12th innings is = (x + 63)/12
=> (x + 63)/12 = x/11 + 2
=> (x + 63)/12 = (x + 22)/11
=> 11(x + 63) = 12(x + 22)
=> 11x + 693 = 12x + 264
=> 693 - 264 = 12x - 11x
=> 429 = x
Average of his score after 12 innings
=> (x + 63)/12
=> (429 + 63)/12
=> 41
Therefore His average after the 12th innings is 41.
Alternate Method
A batsman in his 12th inning makes a score of 63 runs
His average increases by 2 runs
Increased runs = 11 × 2
Increased runs = 22 runs
His average after 12 innings
=> 63 - 22
=> 41

Q43. Answer: (b) 23 years

Given:
The average age of 7 boys is 20 years.
average age of the first six boys is 191/2 years.
Concept used:
Average = Sum of observations / Number of observations
Calculation:
Sum of Age of 7 boys

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=> 20 × 7 = 140

Sum of Age of six boys

=> 6 × 39/2 = 117

Age of 7th boy

=> 140 - 117 = 23 years.

Therefore 7th boy is 23 years old.

Q44. Answer: (d) 625

Calculation:

=> 5 × 5 = 25

=> 25 × 5 = 125

=> 25 × 5 = 625

Therefore The next number is 625.

Q45. Answer: (a) 12

Given:

'A' and 'B' can do a work in 10 days and 15 days respectively.

'A' starts on the work and both work alternately days after days.

Concept used:

Total work = Number of days × efficiency

Calculation

Let the total work be: Lcm of 10 and 15

Total work be 30 units.

Efficiency of A = 30/10 = 3 unit

Efficiency of B = 30/15 = 2 unit

A and B works on the alternate days

=> 2 days = (3 + 2) units

=> 2 days = 5 unit

=> Multiplying 6 on both sides

30 units work done in

=> 2 × 6 = 12 days

Therefore In 12 days will be work be completed

Q46. Answer: (a) Daughter-in-law

Mahesh has two sons Suresh and Amar.

Sia and Jia are sisters who are married to Suresh and Amar respectively.

Family Chart:

Family Tree:

Hence, Jia is the "daughter-in-law" of Mahesh.

Q47. Answer: (a) Wednesday

If the day before yesterday was Saturday then today would be Monday.

If today is Monday then the day after tomorrow would be Wednesday.

Saturday	Day before yesterday
Sunday	Yesterday
Monday	Today
Tuesday	Tomorrow
Wednesday	Day after tomorrow

Hence, the day after tomorrow would be a 'Wednesday".

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Q48. Answer: (c) Wolf : Pack

The logic follows here:
A group of fish is called 'school'.
Similarly,
A group of wolves is called a 'pack'.
Hence, "Wolf : Pack" is analogous with the given pair.
Additional Information
A group of cows is called 'herd'.
A group of Peacock is called 'ostentation' or 'muster'.
A group of elephants is called 'herd' or 'parade'.

Q49. Answer: (c) Soles

A pair of shoes may have either laces or straps.
A pair of shoes may be made up of leather or cloth or other material or fabric.
A pair of shoes always have soles and without them, the shoes are of no use.
Hence, "Soles" is the correct answer.

Q50. Answer: (d) D2E2F2

The given sequence: DEF, DEF2, DE2F2, ____, D2E2F3
The pattern formed by the subscript of the terms of the above sequence is:
111, 112, 122, 222, 223, 233, 333,....
Thus, the missing term will have the subscript 222.
Hence, the missing term is "D2E2F2".

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